



On average, there are 680 hospitalizations a year in Montana with a primary diagnosis of asthma

Twenty-one percent of adults with current asthma in Montana had an unscheduled* visit for asthma in the last year

***ED, urgent care, or medical office**

Data Sources: MHDDS, 2000-2010, ACBS, 2006-2009

Asthma Health Care Utilization and Access

Accessing Health Care in Montana

The Expert Panel Review-3 Guidelines recommend that people with asthma have regular outpatient visits to manage their disease.¹ Inability to access health care can lead to poorly managed asthma. Uncontrolled asthma can result in severe exacerbations that require higher levels of care in the emergency department or inpatient settings. Exacerbations can also result in missed days of work or school and other significant costs.

There are several services available in Montana to help providers improve asthma health care. The Montana Asthma Control Program (MACP) and other Department of Public Health and Human Services (DPHHS) programs work to ensure that people with asthma have access to the care that they need.

Measuring Health Care Access and Utilization in Montana

Data on asthma prevalence among adults were derived from the Montana Asthma Call-back Survey (ACBS). The ACBS is a telephone survey of non-institutionalized adults age 18 years and older. Participants are recruited from the Behavioral Risk Factor Surveillance System (BRFSS) survey respondents who indicate that they either had or currently have asthma. After the BRFSS survey, individuals with current or lifetime asthma are called again and asked more in-depth questions about their experience with asthma. Montana has participated in ACBS, sponsored by the Centers for Disease Control and Prevention, annually since 2006. Only adults with current asthma are included in this report. Current asthma is defined as responding yes to two questions "Has a health care provider ever told you that you have asthma?" and "Do you still have asthma?" Current asthma also refers to a respondent that indicates that they have had asthma symptoms or taken asthma medication in the last 12 months.

Data on hospitalization due to asthma were supplied by the Montana Hospital Discharge Data System (MHDDS) of the Montana DPHHS. The data are made available through a Memorandum of Agreement with the Montana Hospital Association (MHA) and are the property of the MHA. For this report, hospitalizations occurring in 2000-2010 with a primary diagnosis of asthma (ICD-9-CM code 493) were included.² The authors of this document are responsible for all analyses and conclusions reported.

Health Care Utilization

When in control, asthma should be managed through regular outpatient care. However, asthma hospitalizations do occur; there was an average of 680 hospitalizations with a primary diagnosis of asthma per year in Montana between 2000 and 2010.

Hospitalizations

- Late winter and early spring were the most common times of year for asthma hospitalizations in Montana. There was another increase in asthma hospitalization in the fall (Figure 1).
- Women were hospitalized for asthma about 1.6 times more frequently than men (MHDDS, 2000-2010, data not shown).
- The average length of stay for an asthma hospitalization was 3.0 days (MHDDS, 2000-2010, data not shown)
- The average length of hospital stay for asthma increased with age (Figure 2). People age 50 years and older accounted for 42.6% of the asthma hospitalizations since 2000.

Emergency Department (ED) and Urgent Visits

- Among adults with current asthma 11.7% (95% Confidence Interval 8.1%-15.3%) reported they had had a visit to an ED for asthma in the last year (ACBS, 2006-2009, data not shown).
- Eighteen percent (14.0%-21.8%) of adults in Montana with current asthma had an urgent visit to a medical office for asthma in the last year (ACBS, 2006-2009, data not shown).

Routine visits and vaccination

The guidelines recommend having two routine medical visits for asthma a year. They also recommend that people with asthma receive an annual influenza vaccine and a lifetime pneumococcal vaccine.

- Only 22.0% (18.3%-25.7%) of adults with current asthma reported having at least two visits in the last year (Figure 3)
- Only 50.6% (46.0%-55.2%) of adults with current asthma reported having an influenza vaccination in the past year, and only 44.7% (40.2%-49.2%) reported having a pneumococcal vaccine in their lifetime (ACBS, 2006-2009, data not shown).

22.4% of adults with current asthma had no insurance or experienced an insurance interruption in the last 12 months

Data source: ACBS, 2006-2009

Figure 1. Average number of asthma hospitalizations by month, Montana, MHDDS, 2000-2010

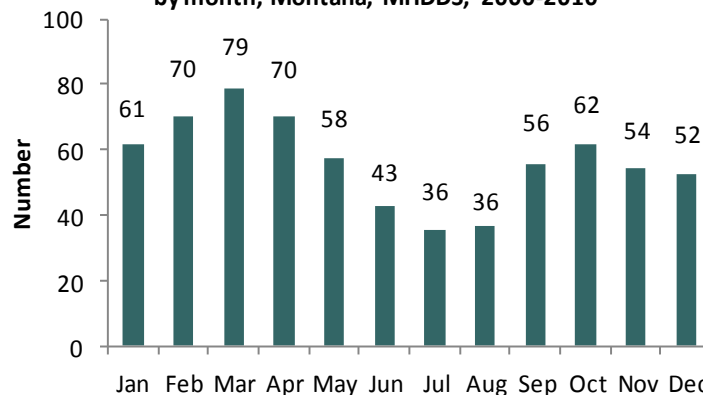


Figure 2. Average length of stay for an asthma hospitalization by age group, MHDDS, Montana, 2000-2010

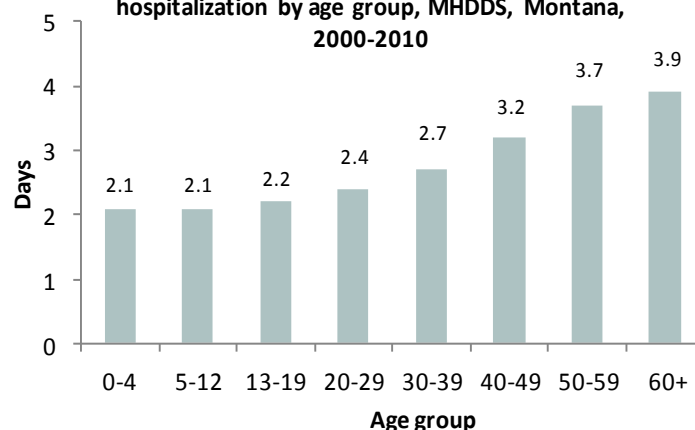
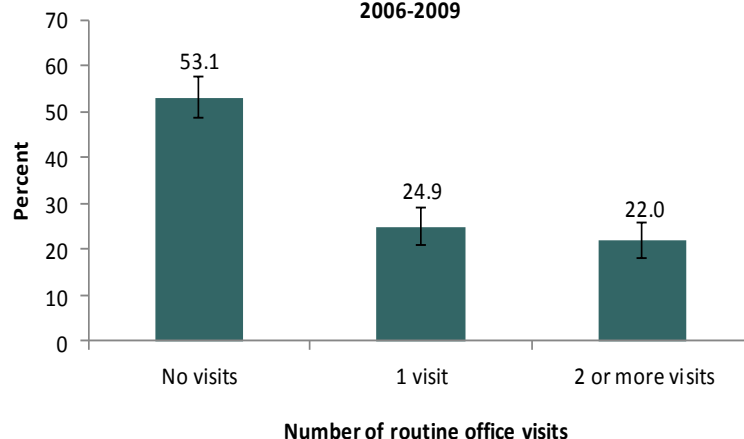


Figure 3. Percent of adults with current asthma who sought routine health care for asthma in the last year, ACBS, Montana, 2006-2009



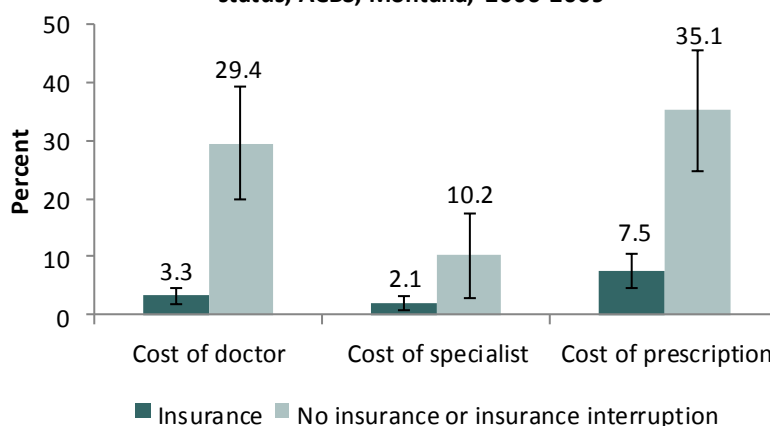
I = 95% Confidence Interval

Health Care Access

Access to health care is an important consideration in managing a chronic disease like asthma and having health insurance is key to making health care accessible.

- Adults with current asthma who had no insurance or who experienced an insurance interruption in the last year had a higher frequency of being unable to afford the cost of seeing a health care professional or filling an asthma prescription than those with continuous insurance (Figure 4).

Figure 4. Percent of adults with current asthma who could not afford some aspect of asthma care by insurance status, ACBS, Montana, 2006-2009



I = 95% Confidence Interval

Services Available in Montana

- The Asthma Care Monitoring System (ACMS) is an information technology and quality improvement software designed to support medical sites in the assessment and follow-up of patients with asthma. This software, which MACP provides free of charge to Montana providers, allows them to track their asthma patients and capture each patient's level of asthma control, exacerbations, medications, self-management education, and other clinically useful data at each visit. Through this system, areas for improvement can be identified and quality improvement projects designed and evaluated; like reminding patients to receive an influenza vaccination and to schedule routine visits.
- In order to link people who visit the ED for asthma back to routine care, the MACP has developed the Asthma Hospital Patient Education, Action Plan, and Discharge Protocol Program (AHEAD). The AHEAD protocol is a quality improvement program designed to support the delivery of evidence-based healthcare according to EPR-3 Asthma Guidelines in EDs and hospitals. Currently there are six Critical Access Hospitals in Montana implementing the AHEAD program.
- Providers interested in implementing ACMS or AHEAD in your facility can contact Jeanne Cannon of the MACP at 406-444-4592 or at jcannon@mt.gov.

Discussion and Key Clinical Recommendations

The primary goal of asthma management is to achieve control in the ambulatory setting. Unfortunately, hundreds of Montanans have hospitalizations or emergency medical visits for asthma each year. People over age 50 carry a large proportion of the asthma hospitalization burden and have longer hospital stays for asthma than do people in younger age groups. Asthma symptoms may be seasonal, with flare-ups requiring emergency care. Achieving and maintaining good asthma control requires regular office visits. Only one in five people with current asthma report having had the recommended number of routine visits for asthma in the last year. For adults with current asthma who do not have insurance, the cost of seeing a provider and buying medications can be a barrier to achieving asthma control. For your patients and clients with asthma consider:

- Notifying patients and clients who have not had two visits in the last year and encouraging them to make a follow-up appointment.
- Questioning patients and clients about the seasonality of symptoms in order to avoid severe exacerbations.
- Using validated tools like the Asthma Control Test to ensure your patients' or clients' asthma is in control.
- Taking into account the cost of medications before prescribing them.
- Contacting the Montana Asthma Control Program at 406-444-7304 or visit www.asthmamontana.com for more information.

Footnotes

- National Heart Lung and Blood Institute (US). Expert Panel Review-3 Guidelines to Asthma Management. National Institutes of Health (US); 2007 Aug. NIH Pub. Available at: <http://www.nhlbi.nih.gov/guidelines/asthma/asthgdln.pdf>
- <http://icd9cm.chrisendres.com/index.php?action=contents>

For more information, visit the Asthma Control Program website: <http://dphhs.mt.gov/asthma>



Attn: Katie Loveland Asthma Control
PO Box 202951
Helena, MT 59620
69670



Asthma Health Care Access and Utilization

LOOK INSIDE FOR INFORMATION ON:

- Emergency department visits and hospitalizations for asthma in Montana
- Percent of people who report barriers to accessing care for asthma in Montana
- Resources for providers who care for patients with asthma in Montana

The Montana Asthma Control Program is funded through the Montana State Legislature and the Centers for Disease Control and Prevention. The goal of the program is to improve the quality of life for all Montanans with asthma. For more information, visit our website at <http://dphhs.mt.gov/asthma>

Katie Loveland, MPH, MSW
Program Manager
kloland@mt.gov
406-444-7304

Jessie Frazier, MPH, CPH
Epidemiologist
jfrazier@mt.gov
406-444-9155

Carolyn Linden
Administrative Assistant
clinden2@mt.gov
406-444-5946